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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,825	06/30/2000	Valery Kuriakin	042390.P9148	2205

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EXAMINER

SINGH, DALIP K

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 04/04/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

23

Office Action Summary

Application No.

09/607,825

Examiner

Dalip K Singh

Applicant(s)

KURIAKIN ET AL.

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 23-28,30,34,38 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22,29,31-33,35-37,39-41,43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The information disclosure statement filed October 31, 2000 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 **because it does not show title of the book or the publisher data**. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-6, 8-9, 11-12, 14-15, 17-18, 20-21, 29, 31-33, 35-37, 39-41 and 43-44 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,326,984 B1 to Chow et al.

a. Regarding claims 1-2, Chow et al. **discloses** a method, comprising:
storing one or more of a plurality of color components ("Y" plane 50, Figure 3) of an image in a planar format (...stored directly into memory as it is received...Figure 3, col. 4, lines 32-35); and storing two or more of the plurality of

color components (“U” and “V” planes 60 and 70, Figure 3) of the image in a packed format, such that the plurality of color components are stored in a mixed format of planar format and packed format during memory management of the image (...Fig. 3 also illustrates...planes 60 and 70 in a planar packed format...col. 4, lines 32-36).

b. Regarding claim 3, Chow et al. **discloses** wherein the plurality of color components are presented in a color space as one of a YUV color space, a YCrCb color space, a YIQ color space, and an RGB color space (...color components received as part of the video data stream 32 may include red, green, blue (RGB) color values...col. 5, lines 46-56).

c. Regarding claim 5, it is similar in scope to claim 1 above and is rejected under the same rationale.

d. Regarding claim 6, it is similar in scope to claim 2 above and is rejected under the same rationale.

e. Regarding claim 8, Chow et al. **discloses** converting a plurality of color components of an image in a mixed format of planar format and packed format (...in a video system which includes “Y”, “U”, and “V” data...the “U” and “V” plane...packed together...Figure 3) into a planar format (...this...include retrieving eight bytes of “Y” data along with four bytes each of “U” and “V” data...col. 7, lines 45-51); and dispatching an image consisting of a plurality of color components in the planar format (...the image data is processed utilizing the color components that have been fetched from the packed plane...if the image data has also been

interleaved...the processing...include...generating...an output display or a new image...col. 7, lines 52-63).

f. Regarding claim 9, Chow et al. **discloses** the Y-plane of YUV planar arrays and the respective planes for “U” and “V” (...Figure 2...”Y” plane 50...the separate color planes, the “U” plane 60, and the “V” plane 70...the typical planar format...col. 3, lines 24-35) into which the memory copy of the luminance components (Y) occurs; and the alternate write-out copying of UV components occurs (...when the data is fetched from the memory 10, the interleaving/de-interleaving block 30 must de-interleave or un-arrange the data such that it is in the format expected by the fetching component...col. 4, lines 24-31) which is similarly described in the specification at page 13, lines 17-23.

g. Regarding claim 11, Chow et al. **discloses** a method comprising: converting a plurality of color components of an image in a mixed format of planar format and packed format into a packed format; and dispatching an image consisting of a plurality of color components in the packed format (...Figure 5 illustrates a packed and interleaved plane 90...there are different ways of interleaving...these fetches are efficient and...display the video image data...col. 5, lines 10-61).

h. Regarding claim 12, it is similar in scope to claim 9 above and is rejected under the same rationale.

i. Regarding claim 14, it is similar in scope to claim 1 above and is rejected under the same rationale.

- j. Regarding claim 15, it is similar in scope to claim 3 above and is rejected under the same rationale.
- k. Regarding claim 17, it is similar in scope to claim 8 above and is rejected under the same rationale.
- l. Regarding claim 18, it is similar in scope to claim 9 above and is rejected under the same rationale.
- m. Regarding claim 20, it is similar in scope to claim 11 above and is rejected under the same rationale.
- n. Regarding claim 21, it is similar in scope to claim 12 above and is rejected under the same rationale.
- o. Regarding claims 29, 33, 37 and 41, they are similar in scope to claim 1 and 5 above, and is rejected under the same rationale.
- p. Regarding claims 31-32, 35-36, 39-40 and 43-44, they are similar in scope to claim 2 above and are rejected under the same rationale.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 7, 10, 13, 16, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,326,984 B1 to Chow et al. in view of U.S. Patent No. 6,078,690 to Yamada et al.

- a. Regarding claim 4, Chow et al. **does not disclose** wherein at least one of the plurality of color components of the image are sub-sampled in a dimension of another color component of the image as one of a 4:2:0 space, a 4:2:2 space, and a 4:1:1 space. Yamada et al. **discloses** such sub-sampling (...color difference components...are subsampled by a factor of two...this format is referred to as 4:2:2...col. 5, lines 10-15; col. 6, lines 44-48). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device as taught by Chow et al. with the feature “color difference subsampling” as taught by Yamada et al. **because** it provides for conversion of image data without causing degradation (col. 6, lines 17-21).
- b. Regarding claim 7, it is similar in scope to claim 4 above and is rejected under the same rationale.
- c. Regarding claim 10, it is similar in scope to claim 7 above and is rejected under the same rationale.
- d. Regarding claim 13, it is similar in scope to claim 10 above and is rejected under the same rationale.
- e. Regarding claim 16, it is similar in scope to claim 13 above and is rejected under the same rationale.
- f. Regarding claim 19, it is similar in scope to claim 16 above and is rejected under the same rationale.
- g. Regarding claim 22, it is similar in scope to claim 13 above and is rejected under the same rationale.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Dalip K. Singh** whose telephone number is **(703) 305-3895**. The examiner can normally be reached on Mon-Thu (8:00AM-6:30PM) Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Matthew Bella**, can be reached at **(703) 308-6829**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

dks

March 31, 2003



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600